



Attorney Docket No. 82111CPK

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of

Alexandra D. Bermel, et al.

TITLE

INK JET RECORDING  
ELEMENT

Serial No.: 09/770,782  
Filed: January 26, 2001

Commissioner for Patents  
Alexandria, VA 22313-1450

Sir:

Group Art Unit: 1774

Examiner: P. Schwartz

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Cheryl L. Betteridge

NAME

SIGNATURE

DATE: \_\_\_\_\_

**DECLARATION UNDER 37 C.F.R. § 1.132**

I, Alexandra D. Bermel, make the following declaration:

1. I am one of the inventors in the above-identified application.
2. I graduated from the University of Rochester, Rochester, NY, in 1983 with a B.S. in Chemical Engineering and from M.I.T. in Boston MA in 1986 with an MS in Chemical engineering.
3. Since 1993 I have worked for Eastman Kodak Company in the field of ink jet inks and media development.
4. I, or someone under my direction, did the experimental work for the Examples in the above-identified application. As indicated in Table 1 on page 5 of the application, PVA-B is Gohsenol® GH-23, which according to the Trade publication of Nippon Gohsei Co., Ltd., is a poly(vinyl alcohol) having an average viscosity at 4% of 52 cp. PVA-D is Elvanol® 52-22 which according to the Trade publication of DuPont Corp., is a poly(vinyl alcohol) having an average viscosity at 4% of 23.5 cp. The data indicates that PVA-B (GH23) has a higher molecular weight but equivalent degree of hydrolysis to PVA-D (5222). The higher molecular weight is

indicated by the higher viscosity. The higher molecular weight PVA was used to eliminate cracking from my coatings, but I still had poor drytime until I increased my hardener to the really high levels presently claimed. The following data provides evidence that the molecular weight of the PVA does not affect dry time.

5. Experiments were performed on August 16, 1999 in which a recording element just as described for Element 1 of the present application was made except that PVA D was used (88/10/2 ratio of Fumed alumina/PVA-D/hardener). The resulting drytime was 10.

6. Likewise, experiments were performed on July 15, 1999 in which a recording element just as described for Comparative Element C-2 of the present application was made except the PVA B (GH23) was used (86.5/12.5/1 ratio of Fumed alumina/PVA/hardener). The resulting drytime was 78.

7. The above data shows that at a low level of hardener for the PVA used in the invention (PVA-B), the drytime was poor, and for a high level of hardener for the PVA used in the comparative examples (PVA D), the drytime was excellent. Thus, PVA type is not the cause of the improved drytime.

8. The undersigned declares further that all statements made herein of her own knowledge are true and all statements made on information and belief are believed to be true. These statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing therein.

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Alexandra D. Bermel

Date: \_\_\_\_\_